

### REMARKS

In the Office Action the Examiner objected to the title for being non-descriptive, objected to claim 16 for an informality, rejected claims 1 and 16 under 35 U.S.C. 112, second paragraph, for being indefinite, rejected claims 4, 7-11, and 15-17 under 35 U.S.C. 102 for being anticipated, allowed claims 1-3, rejected claims 5, 6, and 12-14, under 35 U.S.C. 103 for being obvious. Claims 1-3 and 7-14 remain in the application.

Applicant gratefully acknowledges the allowance of claims 1-3.

The title has been changed as requested by the Examiner.

Claim 1 has been amended to address the informality and has been further amended by changing "accumulator" to "correlator" to be consistent with the specification terminology and the claims.

The rejection to independent claims 7 and 8 that remain in the application was based on Okamoto. Okamoto discloses a transmitter whereas applicant's claims are directed to a receiver. This has been further clarified by adding that term specifically to the claims. Further, claims 7 and 8 have been amended to point out that each of the claimed segments corresponds to a different multi-path. A transmitter transmits only one path. The multi-paths are generated as a result of the transmitted signal contacting objects that cause delays. A significant is also that Okamoto doesn't disclose that the same PN code is multiplied with two different segments. The delays intentionally added by Okamoto create separate PN codes. That is, each delay of Okamoto provides a different PN code and thus distinguishes from the requirement that the same PN code is multiplied with different segments. This characteristic as claimed by applicant provides the benefit of requiring less cycles to perform the same amount of tasks. Accordingly, applicant believes that claims 7 and 8 patentably distinguish over Okamoto. The dependent claims now provide a different combination of elements in a different context and thus different considerations of obviousness.

Applicant again gratefully acknowledges the allowance of claims 1-3.

No amendment made was related to the statutory requirements of patentability unless expressly stated herein. No amendment made was for the purpose of narrowing the scope of any claim, unless Applicant has argued herein that such amendment was made to distinguish over a particular reference or combination of references.

Applicant believes the application is in condition for allowance which action is respectfully solicited. Please contact the below-signed if there are any issues regarding this communication or otherwise concerning this application.

If Applicant has overlooked any additional fees, or if any overpayment has been made,  
the Commissioner is hereby authorized to credit or debit Deposit Account 502117.

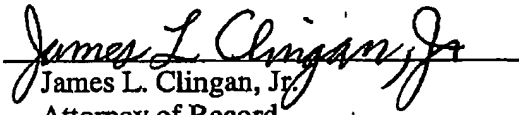
Respectfully submitted,

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IN THE TITLE

[X-Y RECEIVER FOR CDMA TRANSMISSION] A CHIP RATE BASE BAND  
RECEIVER PROCESSOR WHICH RECEIVES DIGITAL INFORMATION CONTAINING  
SYMBOL INFORMATION

**CLAIMS - VERSION WITH MARKINGS TO SHOW CHANGES MADE**

1. (Amended) A chip rate base band processor which receives digital information containing symbol information and provides a symbol output, comprising:
  - an input memory which stores the digital information;
  - a data PN code buffer;
  - a pilot PN code buffer;
  - a pilot multiplier having a first input coupled to the pilot PN code buffer, a second input coupled to the input memory, and an output;
  - a data multiplier having a first input coupled to the data PN code buffer, a second input coupled to the input memory, and an output;
  - a pilot [accumulator] correlator having an input coupled to the output of the first multiplier, and an output;
  - a pilot memory coupled to the [first accumulator] pilot correlator;
  - a channel estimator coupled to the pilot memory;
  - a peak detector coupled to the pilot memory;
  - a data [accumulator] correlator coupled to the data multiplier;
  - load controller having a first input coupled to the peak detector, a second input coupled to data [accumulator] correlator, and an output;
  - a data memory coupled to the load controller;
  - a phase rotator having a first input coupled to the channel estimator, a second input coupled to the data memory, and an output; and
  - a symbol combiner having an input coupled to the phase rotator, and an output which provides the symbol output.
  
7. (Amended) In a chip rate base band receiver processor which receives digital information containing symbol information, wherein each symbol of the symbol information is of a predetermined time duration, a method comprising the steps of:
  - storing the digital information;
  - multiplying a PN code with a first segment, corresponding to a first multi-path and representative of the predetermined time duration, of the stored digital information and

multiplying the PN code with a second segment, corresponding to a second multi-path  
and representative of the predetermined time duration, of the stored digital  
information.

8. (Amended) In a chip rate base band receiver processor which receives digital information  
containing symbol information, wherein each symbol of the symbol information is of a  
predetermined time duration, a method comprising the steps of:

storing the digital information; and

successively multiplying a first PN code with a first plurality of segments of the stored  
digital information, wherein each segment corresponds to a different multi-path is  
representative of the predetermined time duration.